BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Subsidiary Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Foundation Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Extended Diploma in Construction and the Built Environment Pearson BTEC International Level 3 Diploma in Civil Engineering Pearson BTEC International Level 3 Extended Diploma in Construction and the Civil Engineering Pearson BTEC International Level 3 Diploma in Building Services Engineering Pearson BTEC International Level 3 Extended Diploma in Building Services Engineering
Unit number and title	Unit 15: Measurement Techniques in Construction
Learning aim(s) (For NQF only)	Learning Aim B: Undertake the production of quantities for substructure and superstructure elements Learning Aim C: Undertake the production of bills of quantities
Assignment title	Single-storey building extension take-off
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	You are working as a trainee in a large quantity surveying department. Your role has predominantly been to assist senior surveyors in the preparation of bills of quantities for large projects. Your team leader has noted your development and now feels you are ready to undertake a small project from start to finish alone including some aspects of civil engineering works. The company have recently been asked to design and build a detached single storey extension for a regular and valued client. The architectural department within the company has provided you with a set of plans, elevations, sections and associated detailed drawings for the project. It is now your role to undertake the take-off and produce the bills of quantities. Your client is not from a construction background but is very keen to learn more and understand the processes involved. Therefore, on completion of the take-off and production of the bills you are expected to write to the client and explain the process you undertook and provide a rationale for your approach.
Task 1	Explain the difference between the production of quantities

	for building projects and the production of quantities for civil engineering projects. Using a recognised standard method of measurement undertake a take-off for the following items: • Substructure • Drainage and manholes • Superstructure • Roof
Checklist of evidence required	To achieve this task, you will have undertaken a take-off of the property using a standard method of measurement and produced a detailed and accurate take-off sheets on industry standard paperwork and documentation. Prepare a covering letter to send to your client along with the bills of quantities explaining: • The different approach you took when undertaking the take-off for the civil engineering aspects of the works. • The different approaches you could have used when preparing the bills of quantities.

Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria you must show that you are able to:
15/B.P3	Perform a take-off of quantities for a project using a recognised standard method of measurement and an appropriate layout of dimensions.
15/B.P4	Explain the difference between the production of quantities for building projects and the production of quantities for civil engineering projects.
15/B.M2	Perform an accurate take-off of quantities for a project using a recognised standard method of measurement and a vocationally correct layout of dimensions.
15/B.D2	Perform an accurate and comprehensive take-off of quantities for a project using are cognised standard method of measurement and a vocationally correct layout of dimensions and methodology.

Task 2	Using the information produced in a task one, produce detailed and comprehensive bills of quantities for the project.
Checklist of evidence required	To achieve this task, you will: Explain the different methods used to convert the take-off into bills of quantities. Produce detailed and comprehensive bills of quantities for the project. The bills of quantities can be in the form of a typed schedule or in electronic format. You should use industry standard templates and ensure it is clear and accurate.

Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria you must show that you are able to:
15/C.P5	Produce bills of quantities for a construction project.
15/C.P6	Explain the different methods used to convert the take-off into bills of quantities.
15/C.M3	Produce accurate bills of quantities for a construction project.
15/C.D3	Produce comprehensive bills of quantities for a construction project.
Sources of information to support you with this Assignment	Pearson BTEC National Construction Student Book Authors: Simon Topliss, Mike Hurst, Simon Cummings. Sohrab Donyavi Cartlidge D, - *Quantity Surveyors Pocket Book* 3rd Ed (Routledge 2017), ISBN: 978-1138698369 Cartlidge D, - *Estimators Pocket Book* (Routledge 2013), ISBN: 978-0415527118 Lee S, Trench W, Willis A – *Willis's Elements of Quantity Surveying* (Wiley Blackwell 2014), ISBN: 978-1118499207 Brook M, - *Estimating and Tendering for Construction Work* (Routledge 2016), ISBN: 978-1138838063 Further Resources may be found at qualifications.pearson.com/en/support/published-resources.html
Other assessment materials attached to this Assignment Brief	*Plans, elevations and sections for a single storey L shaped property.*

Unit 15: Measurement Techniques in Construction Assignment 2

Learning aim B and C

Note to assessor

Scenario	The scenario set in the assignment brief is for a single-storey building extension with associated drainage etc. and relevant civil engineering work.
Tasks 1 and 2	In support of the assignment brief you are required to produce/obtain comprehensive, annotated and dimensioned drawings to allow the learners to undertake the take-off and production of the bills. It is recommended that the building is not a simple rectangle with a preference being for an L shaped structure. The section drawings should be complete from foundation to ridge and include all necessary and appropriate detailing. There is no need for the learners to take-off for doors and windows. Similarly you will also need to provide details of the drainage in the form of plans and sections. To prevent collusion it would be advantageous to provide a series of buildings which all slightly differ in size or layout.